

Successful cooperation between IPCC and ICAO

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E-GAP



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INTERGOVERNMENTAL PANEL ON climate change

Outline

- Intergovernmental Panel on Climate Change
 - Structure and role of WGs/TFI
- IPCC Reports relevant to aviation
- Typical examples of successful cooperation between IPCC and ICAO
 - Special Report on Aviation and the Global Atmosphere
 - 2006 IPCC Guidelines for National Greenhouse Gas Inventories
- Conclusions

Intergovernmental Panel on Climate Change



IPCC Plenary

IPCC Bureau

IPCC Executive Committee

IPCC Secretariat
(in Geneva,
Switzerland)

Working
Group I

The Physical
Science Basis

TSU
(Switzerland)

Working
Group II

Climate Change
Impacts,
Adaptation and
Vulnerability

TSU
(USA)

Working
Group III

Mitigation
of
Climate Change

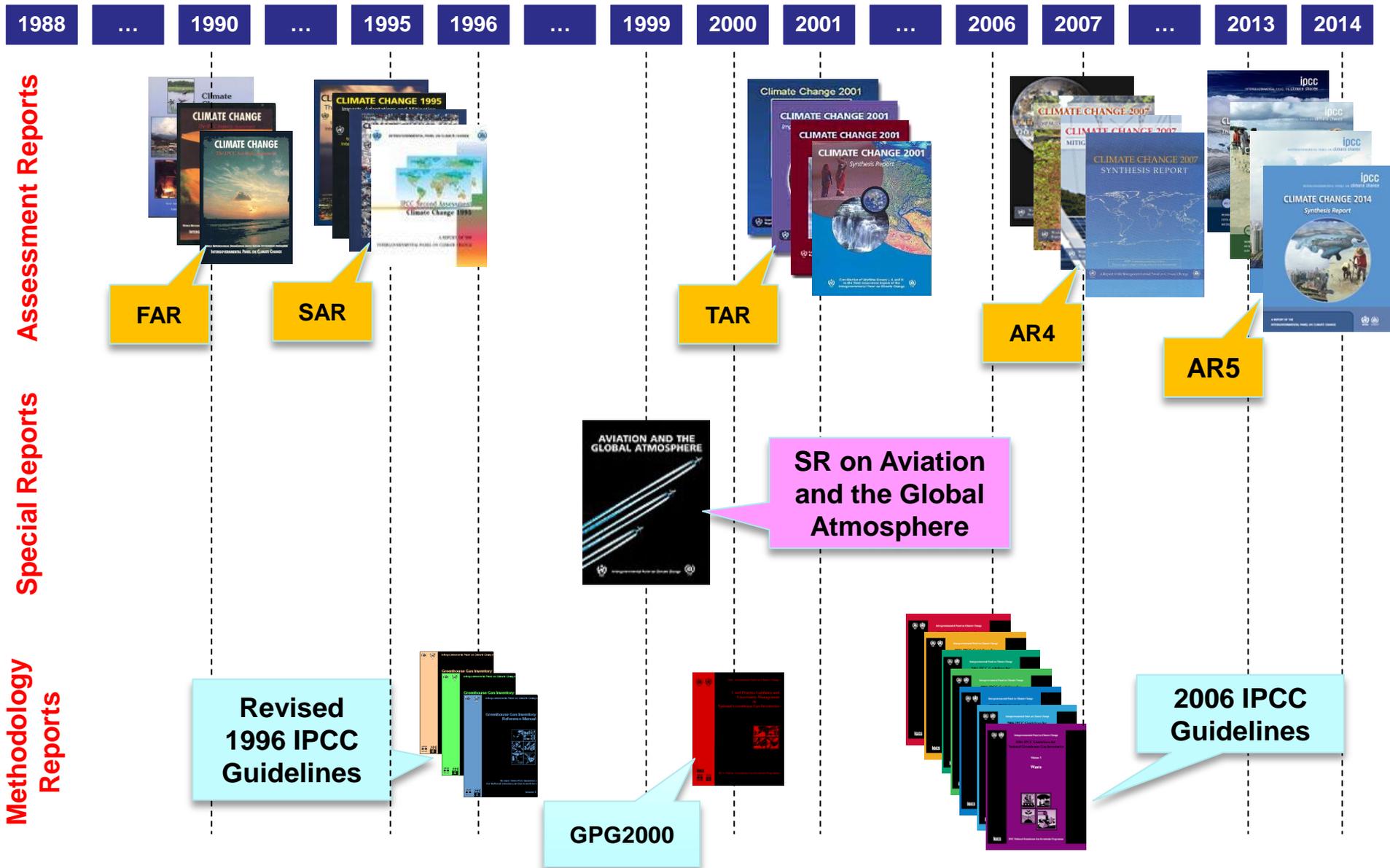
TSU
(Germany)

Task Force
on
National
Greenhouse
Gas
Inventories
(TFI)

TSU
(Japan)

Authors, Contributors, Reviewers

IPCC Reports relevant to aviation

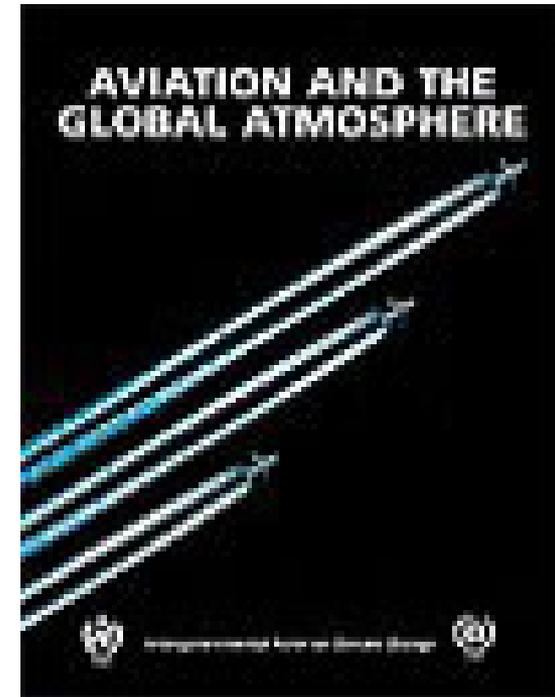


Special Report on Aviation and the Global Atmosphere (1999)

- In 1996, a joint international assessment of environmental impacts of aircraft was requested by ICAO with the following background:
 - Emissions from supersonic and subsonic aircraft potentially influenced two global environmental issues – ozone depletion and climate change.
 - Aircraft manufacturers were aiming to make a decision about commitments to a new supersonic transport before the year 2000.
 - The potential global impacts of the subsonic fleet was under increasing examination by scientists, governments and NGOs.
- IPCC considered this request at the 12th Session (Mexico City, Mexico, September 1996), and decided to prepare a *Special Report on Aviation and the Global Atmosphere*.

Special Report on Aviation and the Global Atmosphere (1999)

- Prepared by the IPCC Working Groups I and III in collaboration with the Scientific Assessment Panel to the Montreal Protocol.
- Approved/accepted by the joint session of Working Groups I and III and accepted by the IPCC at the 15th Session (Sao Jose, Costa Rica, April 1999).



Special Report on Aviation and the Global Atmosphere (1999)

- Assesses the effects of aircraft on climate & atmospheric ozone.
- Is the first IPCC report for a specific industrial subsector.

Outline - chapters

Chapter 1	Introduction
Chapter 2	Impacts of Aircraft Emissions on Atmospheric Ozone
Chapter 3	Aviation-Produced Aerosols and Cloudiness
Chapter 4	Modeling the Chemical Composition of the Future Atmosphere
Chapter 5	Solar Ultraviolet Irradiance at the Ground
Chapter 6	Potential Climate Change from Aviation
Chapter 7	Aircraft Technology and Its Relation to Emissions
Chapter 8	Air Transport Operations and Relation to Emissions
Chapter 9	Aircraft Emissions: Current Inventories and Future Scenarios
Chapter 10	Regulatory and Market-Based Mitigation Measures

Special Report on Aviation and the Global Atmosphere (1999)

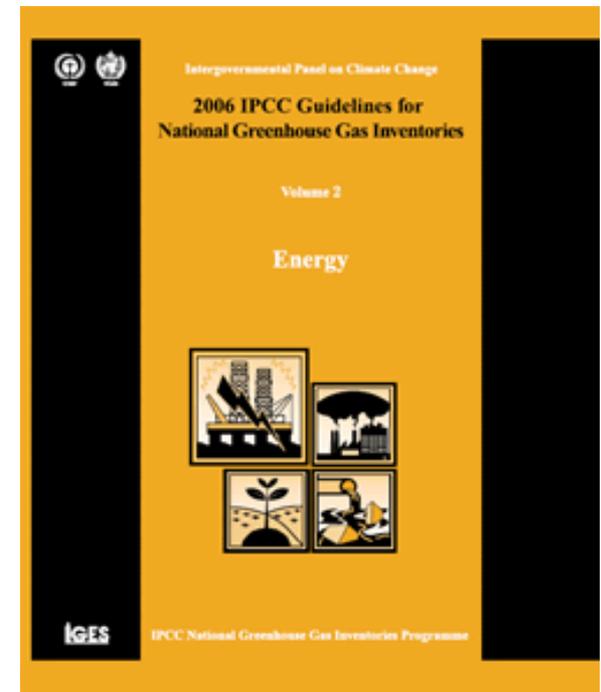
- ICAO Representative expressed appreciation to the IPCC.
“When ICAO requested this report in 1996, we were primarily looking for a better definition of the atmospheric impact of aircraft engine emissions. This report succeeds in providing the most authoritative assessment so far on this subject. It helps define the issues and to identify the remaining uncertainties.”
- Subsequently, this Special Report was fully taken into account in ICAO’s work on aircraft engine emissions and its study on policy options to limit or reduce GHG emissions from civil aviation.

2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006)

- Since 1991, IPCC has been developing and refining an internationally-agreed methodology for estimation and reporting of national GHG emissions and removals, which has been published as IPCC Methodology Reports – *IPCC Guidelines for National Greenhouse Gas Inventories*.
- Guidance to estimate emissions from aircraft is an integral part of the *IPCC Guidelines for National Greenhouse Gas Inventories*, and has benefited from inputs by ICAO.
- At the CAEP Working Group 3 meeting in May 2004 in Boston, the IPCC invited the ICAO to cooperate and contribute to the work to revise the *Revised 1996 IPCC Guidelines*.

2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006)

- Revision of the Revised 1996 IPCC Guidelines resulted in publication of the *2006 IPCC Guidelines for National Greenhouse Gas Inventories* adopted/accepted by the IPCC at the 25th Session (Port Louis, Mauritius, April 2006).
- Chapter 3.6 in Volume 2 provides methodological guidance to estimate emissions from aviation.



2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006)

- Some key data/information were taken from ICAO resources. For example:
 - *ICAO Engine Exhaust Emissions Data Bank (2004)*: important source of up-to-date LTO emission factors by aircraft type
 - *'International Standards and Recommended Practices Environmental Protection - Annex 16 to the Convention on International Civil Aviation.'* - Volume II Aircraft Engine Emissions, 2nd edition (1993): Information to assist in computing uncertainties associated with LTO emission factors
- Continuous contribution of up-to-date data/information from ICAO through the IPCC Emission Factor Database would greatly help users of the *2006 IPCC Guidelines*.

Conclusion

- IPCC and ICAO have been successfully cooperating in producing a number of IPCC Reports. Typical examples are:
 - Special Report on Aviation and the Global Atmosphere (1999)
 - 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2006)
- IPCC Reports have benefited from inputs by ICAO.
- IPCC Reports have been appreciated and taken into account by ICAO in its work and study.
- It is desirable that successful cooperation between IPCC and ICAO be continued and enhanced in the future.



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Thank you.



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